### **Panasonic**

Heavy Duty CD player/Weather Band Receiver

Model: **CQ-5100U** 



### **Operating Instructions**

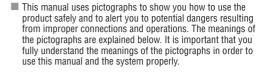




• Please read these instructions (including "Limited Warranty" and "Customer Services Directory") carefully before using this product and keep this manual for future reference.

### **Safety Information**

Read the operating instructions for the unit and all other components of your car audio system carefully before using the system. They contain instructions about how to use the system in a safe and effective manner. Panasonic assumes no responsibility for any problems resulting from failure to observe the instructions given in this manual.





This pictograph intends to alert you to the presence of important operating instructions and installation instructions. Failure to heed the instructions may result in severe injury or death.



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### **A** Warning

### Observe the following warnings when using this unit.

☐ The driver should not operate the system while

Operating the system will distract the driver from looking ahead of the vehicle and can cause accidents. Always stop the vehicle in a safe location and use the parking brake before operating the system.

☐ Use the proper power supply.

This product is designed for operation with a negative grounded 12 V DC battery system. Never operate this product with other battery systems, especially a 24 V DC battery system.

☐ Do not expose the unit to direct sunlight or excessive heat.

Otherwise these will raise the interior temperature of the unit, and it may lead to smoke, fire, or other damage to the

☐ Do not use the product where it is exposed to water, moisture, or dust.

Exposure of the unit to water, moisture, or dust may lead to smoke, fire, or other damage to the unit. Make especially sure that the unit does not get wet in car washes or on rainy

☐ Protect the Deck Mechanism.

Do not insert any foreign objects into the slot of this unit.

☐ Do not disassemble or modify the unit.

Do not disassemble, modify the unit or attempt to repair the product yourself. If the product needs to be repaired, consult the shop where you purchased this unit or an authorized Panasonic Servicenter.

□ Do not use the unit when it is out of order.

If the unit is out of order (no power, no sound) or in an abnormal state (has foreign matter in it, is exposed to water, is smoking, or smells), turn it off immediately and consult the store where you purchased it.

□ Any NOAA broadcast weather report, including current and forecasts, may not reflect your actual weather conditions at your exact time and location. You should always pay attention to your actual weather conditions to make safe decisions

accordingly.

### Observe the following warnings when installing.

□ Disconnect the lead from the negative (-) battery terminal before installation.

Wiring and installation with the negative (–) battery terminal connected may cause electrical shock and injury due to a short circuit.

Some cars equipped with the electrical safety system have specific procedures of battery terminal disconnection. FAILURE TO FOLLOW THE PROCEDURE MAY LEAD TO THE UNINTENDED ACTIVATION OF THE ELECTRICAL SAFETY SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY OR DEATH.

Never use safety-related components for installation, grounding, and other such functions. Do not use safety-related vehicle components (fuel tank, brake, suspension, steering wheel, pedals, airbag, etc.) for

wiring or fixing the product or its accessories. Installing the product on the air bag cover or in a location where it interferes with airbag operation is

Check for piping, gasoline tank, electric wiring, and other items before installing the product.

If you need to open a hole in the vehicle chassis to attach or wire the product, first check where the wire harness, gasoline tank, and electric wiring are located. Then open the hole from outside if possible.

Never install the product in a location where it interferes with your field of vision.

Never have the power cord branched to supply other equipment with power.

After installation and wiring, you should check the normal operation of other electrical equipment.

The continuation of their using in abnormal conditions may cause fire, electrical shock or a traffic accident.

In the case of installation to an airbag-equipping car, confirm warnings and cautions of the vehicle manufacturer before installation.

■ Make sure the leads do not interfere with driving or getting in and out of the vehicle.

Insulate all exposed wires to prevent short circuiting.

### Refer wiring and installation to qualified service ∕!\ Caution personnel. Installation of this unit requires special skills and Observe the following cautions when using this experience. For maximum safety, have it installed by the shop where you purchased it. Panasonic is not liable for any unit. problems resulting from your own installation of the unit. ☐ Keep the sound volume at an appropriate level. □ Follow the instruction to install and wire the Keep the volume level low enough to be aware of road and product. traffic conditions while driving. Not following the instructions to properly install and wire □ Do not insert or allow your hand or fingers to be the product could cause an accident or fire. caught in the unit. □ Take care not to damage the leads. To prevent injury, do not get your hand or fingers caught in When wiring, take care not to damage the leads. Prevent moving parts or in the disc slot. Especially watch out for them from getting caught in the vehicle chassis, screws, and moving parts such as seat rails. Do not scratch, pull. ☐ This unit is designed for use exclusively in bend or twist the leads. Do not run them near heat sources automobiles. or place heavy objects on them. If leads must be run over sharp metal edges, protect the leads by winding them with ☐ Do not operate the unit for a prolonged period with vinyl tape or similar protection. the engine turned off. $\Box$ Use the designated parts and tools for installation. Operating the audio system for a long period of time with Use the supplied or designated parts and appropriate tools the engine turned off will drain the battery. to install the product. The use of parts other than those □ Refer fuse replacement to qualified service supplied or designated may result in internal damage to the personnel. unit. Faulty installation may lead to an accident, a When the fuse burns out, eliminate the cause and have it malfunction or fire. replaced with the fuse prescribed for this unit by a qualified ☐ Do not block the air vent or the cooling plate of the service engineer. Incorrect replacement of the fuse may lead unit. to smoke, fire, and damage to the product. ☐ To ensure safety, never attempt to preset stations Blocking these parts will cause the interior of the unit to while you are driving. overheat and will result in fire or other damage. ☐ Depending upon the transmission condition of □ Do not install the product where it is exposed to strong vibrations or is unstable. electro-magnetic waves, the geographical reasons and/or the weather conditions, you may not receive Avoid slanted or strongly curved surfaces for installation. If the installation is not stable, the unit may fall down while the NOAA radio partially or at all. driving and this can lead to an accident or injury. ■ Make sure that your weather radio can receive □ Installation Angle properly before driving, especially, before use in a The product should be installed in a horizontal position with critical condition. the front end up at a convenient angle, but not more than ☐ Set the volume level to low enough before the AUX connection is completed. The user should bear in mind that in some areas there may be restrictions on how and where this unit must be Failure to observe this, the loud noise may come out and installed. Consult your dealer for further details. damage your speakers and your hearing. Direct connection of ☐ Wear gloves for safety. Make sure that wiring is the speaker/headphone output of an external device without completed before installation. any attenuator may distort sound or damage the connected ☐ To prevent damage to the unit, do not connect the external device. power connector until the whole wiring is

### ∕!\ Caution

installing.

THIS PRODUCT UTILIZES A CLASS I LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE DO NOT OPEN COVERS AND DO NOT REPAIR BY

Observe the following cautions when

YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

4. Customer Care Plan.....

### The following applies only in the U.S.A.

### Part 15 of the FCC Rules FCC Warning:

completed.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

☐ Do not connect more than one speaker to one set of

speaker leads. (except for connecting to a tweeter)

### Accessories

1. Operating Instructions	1
2. Supplied Hardware	1 set (=> page 24)
3. Product Registration Card	, , ,

### **Customer Services Directory**

### U.S.A.

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Servicenter; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

http://www.panasonic.com/support

or, contact us via the web at:

http://www.panasonic.com/contactinfo

You may also contact us directly at:

1-800-211-PANA (7262),

Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm. EST.

For hearing or speech impaired TTY users,

TTY: 1-877-833-8855

### **Accessory Purchases:**

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:

### http://www.pasc.panasonic.com

or, send your request by E-mail to:

### npcparts @panasonic.com

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only)

(Monday-Friday 9 am to 8 pm, EST.)

Panasonic Services Company

20421 84th Avenue South, Kent, WA 98032

(We accept Visa, MasterCard, Discover Card, American

Express, and Personal Checks)

For hearing or speech impaired TTY users,

TTY: 1-866-605-1277

### Service in Puerto Rico

Panasonic Puerto Rico, Inc.

Panasonic Sales Company

Factory Servicenter:

Ave. 65 de Infanteria, Km. 9.5, San Gabriel Industrial

Park, Carolina, Puerto Rico 00985

Phone (787) 750-4300, Fax (787) 768-2910

### **Limited Warranty**

### U.S.A.

PANASONIC CONSUMER ELECTRONICS COMPANY,
DIVISION OF PANASONIC CORPORATION OF NORTH AMERICA
One Panasonic Way. Secaucus. New Jersey 07094

PANASONIC SALES COMPANY, DIVISION OF PANASONIC PUERTO RICO, INC. Ave. 65 de infanteria, Km. 9.5, San Gabriel Industrial Park Carolina. Puerto Rico 00985

### PANASONIC AUTO PRODUCTS LIMITED WARRANTY

### LIMITED WARRANTY COVERAGE

If your product does not work properly because of defects in materials and workmanship.

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the warrantor") will, for the length of the period indicated in the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or refurbished product. The decision to repair or replace will be made by the warrantor.

Categories	Parts	Labor
Audio Components (except items listed below)	one (1) Year	One (1) year
MXE Series Audio Components (except items listed below)	. ,	Two (2) Years
Speakers	One (1) Year	Not Applicable
Defective Car Audio Speakers under warranty		
must be exchanged at the place of purchase.		
Contact your Dealer for details.		
Accessories (in exchange for defective items)	Ninety (90) Days	Not Applicable

During the "Labor" warranty period, there will be no charge for labor. during the "Parts" warranty period, there will be no charge for parts. You must carry in or mail in your product during the warranty period. If non-rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

### **CARRY-IN OR MAIL-IN SERVICE**

For Carry-In or Mail-In Service in the United States, call 1-800-211-PANA (7262) or visit

Panasonic Web Site: http://www.panasonic.com For assistance in Puerto Rico, call Panasonic Sales Company (787)-750-4300 or fax (787)-768-2910.

### LIMITED WARRANTY LIMITS AND EXCLUSIONS

This warranty ONLY COVERS failures due to defects in materials and workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages

which occurred during shipment, failures which are caused by products not supplied by the warrantor, failures which result from accident, misuse, abuse, neglect, bug infestation, mishandling, misapplication, alteration, faulty installation, set-up adjustment, maladjustment of consumer control, improper maintenance, improper antenna, inadequate signal reception or pickup, power line surge, improper voltage supply, lightning, modification, commercial use (such as use in hotels, offices, restaurants, or other business uses) or rental use of the product, or service by anyone other than the technician from Factory Servicenter or other authorized service centers, or damage that is attributable to acts of God.

### THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.

(As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the servicer, and loss of media, data or other memory contents. The items listed are not exclusive, but are for illustration only.) ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to warrantor's Consumer Affairs Department at the addresses of the warrantor.

### PARTS AND SERVICE WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

Customer's Record Model No.		
Serial No.		
Dealer's No.		
Code No.		
Dealer's Address		
Date of Purchase		

### **Contents**

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### **Power and Sound Controls**

### **Power**

Turn the key in the ignition until the accessory indicator lights.

Power on: Press [MODE](POWER).

Power off: Hold down [MODE](POWER) for

more than 1 second.



### **Display Change -**

Press [DISP] (display) to switch to the clock display.

When the power is off:



8: 15

No display

Clock display

**Note:** "Adj" is displayed when the clock is not adjusted (→ page 10)



### **Volume**

Turn the knob clockwise to increase volume, and counterclockwise to decrease volume.



Volume level (0 to 40) (default:18)



### Mute

Press [MUTE] to mute the sound completely.



lights

Press [MUTE] again to cancel.

### **∧** Caution

Set the volume level to low enough before the AUX connection is completed.

### AUX (AUX IN)

From line output of external sound/audio device (ex. Silicon-audio player, HDD player, etc.) ( $\Rightarrow$  page 16)

RU In

### **Power and Sound Controls (Continued)**



### **SQ** (Sound Quality)

SQ is a function that can call up various sound types at the touch of button in accordance with your listening music type.

Hold down **[SQ]** for more than 2 seconds to select the sound type as follows:



(FLAT) flat frequency response: does not emphasize any part. (default)



(ROCK) speedy and heavy sound: exaggerates bass and treble.



(POP) wide-ranged and deep sound: slightly emphasizes bass and treble.



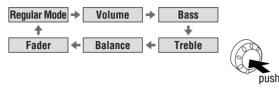
(VOCAL) clear sound: emphasizes middle tone and slightly emphasizes treble.

**Note:** Settings of SQ, bass and treble are influenced one another. If such an influence causes distortion to the audio signal, readjust bass/treble or volume.

### Audio Modes (Bass/Treble/Balance/Fader)

**Note:** If no operation takes place for more than 5 seconds in audio mode (2 seconds in volume mode), the display returns to the regular mode.

Push [VOLUME] (PUSH SEL) to select the audio mode.





Turn [VOLUME] clockwise or counterclockwise to change each level.



### Volume:



default : 18

Adjustable range: 0 to 40

### Bass:



default : 0 dB

Adjustable range: -12 to +12 dB (by 2 dB step)

### Treble:



default : 0 dB

Adjustable range: -12 to +12 dB (by 2 dB step)

### **Balance:**

R (right speaker) or L (left speaker)



Adjustable range: 0 to 15 (by 1 step)

### Fader:

F (front speaker) or R (rear speaker)



Adjustable range: 0 to 15 (by 1 step)

### **Clock Adjustment**

### Selecting the Clock Display -

Press [DISP] (CLOCK) to change the display.

Radio mode display (default)





Clock display

The 12-hour system is used for the clock.



**Initial Time** 

[\tag{TUNE}], [\tag{TUNE}] (Hours, Minutes)

1 Press [DISP] (CLOCK).



"Adj" is displayed when the clock is not adjusted.

2 Hold down [DISP] (CLOCK) for more than 2 seconds.



(Hour blinks)

3 Adjust the hour.

-8:30 FM L

(Hour set)

Press [\(\Lambda\)]: sets the hour ahead. Press [\(\Lambda\)]: sets the hour back.

4 Press [DISP] (CLOCK).

BUC FM I

(Minute blinks)

(5) Adjust the minute.

8 15 FM I

(Minute set)

Press [ ]: sets the minute ahead.

Press [\square): sets the minute back.

6 Press [DISP] (CLOCK).

8:15 FM 1 (Co

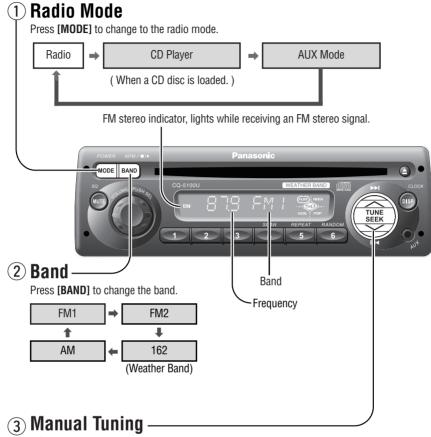
(Completed)

### **Time Reset**

Hold down **[DISP]** (CLOCK) for more than 2 seconds to active the time setting mode to reset the time. Then, repeat steps 3 to 6.

**Note:** Hold down  $[\ \ ]$  or  $[\ \ \ ]$  to change numbers rapidly.

### Radio



[ TUNE]: Higher frequency [ TUNE]: Lower frequency

### **Seek Tuning**

Hold down for more than 0.5 seconds and release it.

[**\TUNE**]: Higher frequency [**\TUNE**]: Lower frequency

Tuning will automatically stop when the next broadcast

station is received.

### Radio (Continued)

### **Preset Station Setting**

Up to 6 stations can be saved in each of the FM1, FM2 and AM preset station memories.

**Note:** Existing saved stations are overwritten with new stations after following this procedure.

### (1) Band

Press [BAND](APM) to select a desired band. (→ page 11)



Preset buttons from [1] to [6]

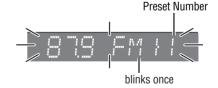
### 2 Auto Preset Memory (APM)

Hold down **[BAND]** (**APM**: auto preset memory) for more than 2 seconds.

- The 6 stations with good reception will be automatically saved in the memory under preset buttons from [1] to [6].
- Once set, the preset stations are sequentially scanned for 5 seconds each.
- To stop scanning, press one of the buttons from [1] to [6].

### **Manual Preset Memory**

- 1 Use manual or seek tuning to find a station. (→ page 11)
- 2 Hold down one of the preset buttons from [1] to [6] until the display blinks once.



### **Preset Station Calling**

Press the corresponding preset button from [1] to [6] to tune in a preset station.



To ensure safety, never attempt to preset stations while you are driving.



### **Tuning in a Weather Band Station**

- Press [BAND](APM) to select WB (Weather Band). (→ page 11)
- Press any of the buttons [1] to [6] to monitor the preset station.



Note: The weather band (CH1-6) has been preset. CH7 is selected by pressing [∧] or [√].

### **Weather Band Stations**

National Weather Radio Broadcasts from over 380 locations throughout the U.S. on seven VHF/FM frequencies.

Tune to weather band to receive continuous weather information 24 hours a day on one of the following frequencies.

- 1. 162.550 MHz
- 2. 162.400 MHz
- 3. 162.475 MHz
- 4. 162.425 MHz
- 5. 162.450 MHz
- 6. 162.500 MHz
- 7. 162.525 MHz

Occasionally the frequency of an existing or planned station must be changed because of unexpected radio frequency interfere with adjacent NOAA weather Radio Stations and/or with other Government or commercial Operations within the area. If you have a question concerning NOAA Weather Radio, please contact your nearest National Weather Service Office.



Any NOAA broadcast weather report, including current and forecasts, may not reflect your actual weather conditions at your exact time and location. You should always pay attention to your actual weather conditions to make safe decisions accordingly.

### **CD Player**

### **Disc Insert and Playback**

### Disc insert

Playback will start automatically after the player recognized the loaded disc as an ordinary music CD. (When a CD-R or CD-RW which has CD-DA\* formatted data as the same as an ordinary music CD is loaded, this player recognizes it as an ordinary music CD.)

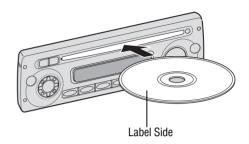
\*CD-DA: A general music CD format.

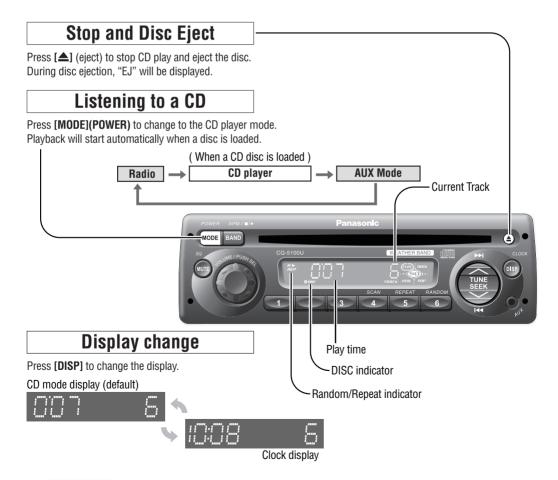
"LOAd" will be displayed until the disc is loaded.



### Notes:

- . Do not insert a disc when "DISC" indicator lights.
- The power will be turned on automatically when a disc is loaded.





### **⚠** Caution

- Only 12 cm (5") CD, CD-DA data recorded CD-R and CD-RW discs are available for this unit.
- This unit does not support CD text display.
- This unit does not support MP3 and WMA disc playback.
- Refer to page 21 about notes on CD-R/RW.
- This unit is not designed for any 8 cm {3"} disc.
- If you insert an 8 cm {3"} disc and can not eject it, turn ACC of your car off once and turn it on again, then press [\( \bullet \)] (eject).
- Do not use irregular shaped discs.
- Do not use discs that have a seal or label attached.
- Do not insert foreign matter into the disc slot.



### **Pause**

- Press [BAND] (■1/►).
- · Press again to cancel.

### **Track Selection -**

Press [>> TUNE]: Advance to the next track.

Press [◄◄ TUNE]: Back to the beginning of the current

track.

Back to the previous track. (Press

twice.)

### **Track Search**

Hold down...

[►► TUNE]: Fast forward [► TUNE]: Fast reverse

Release to resume the regular play.

### Repeat play

• Press [5] (REPEAT) .

The current track is repeated.

• Press [5] (REPEAT) again to cancel.



### Random play

Press [6] (RANDOM).

All the tracks are played in random order.

• Press [6] (RANDOM) again to cancel.



### Scan play

• Press [4] (SCAN).

The first 10 seconds of each track on the disc are played in sequence.

• Press [4] (SCAN) again to cancel.



blinks

### **AUX (Auxiliary Input Mode)**

### **Before Using the Portable Audio Device**

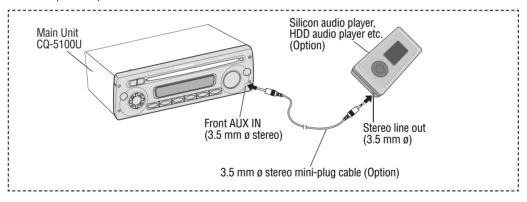
### **A** Warning

- Do not place the connected portable audio device or mini-plug cable in a location where it will prevent the SRS airbag may not operate correctly or the portable audio device may be catapulted outward by the deploying airbag, which may result in serious injury or death.
  - \*Refer to the owner's manual for your car regarding the deploying position of the SRS airbag.
- Please or temporarily fix the portable audio device and mini-plug cable where they will not interfere the
  driver when driving. Otherwise, they may interfere driving or cause auto accident.

### Connecting with the portable audio player

The AUX input terminal is equipped on the front panel. This jack is used to connect a portable audio device using a standard mini-plug cable. By connecting a commercially available portable audio device, this unit can play the music recorded on the device.

### The AUX Input Example:



### **⚠** Caution

- Set the volume level to low enough before the AUX connection is completed. Failure to observe this may cause loud noise and, consequently, damage your speakers and your hearing.
- Do not connect this AUX directly with a speaker/ headphone output. Failure to observe this may distort sound and break the internal amplifier.

### Notes:

- When the high impedance output enuipment such as old type audio equipment with an output transformer is connected, sound may be distorted or become extremely low levels.
- The connected audio equipment should be kept away from the speakers.
- Be sure that your hand does not catch and yank the mini-plug cable.

### Listening to the portable audio device

- 1) Turn on the connected portable audio device and play the music.
- ② Press [MODE] (POWER) to change to AUX mode. The sound of the portable audio device is output through the | speakers.



"AU In" will be displayed when switch to the AUX mode.



### Display change

Press [DISP] to change the display.

AUX input mode (default)



### Notes:

- If you disconnect the mini-plug cable and connect it again in AUX mode, noise is generated and may cause speaker damage. Disconnect or connect the mini-plug cable after turning the unit's power off or switching it to another mode.
- Each device has a different output level. Be sure that the volume is not too high.
- If the input volume of the connected device is high, the distortion may result. In such cases, adjust the volume on the connected device.
- For the power source of the portable audio device, use a battery, etc., provided with the device. If the device is powered through a cigarette lighter socket or accessory socket of the car, noise may be generated.

### **Troubleshooting**

### If You Suspect Something Wrong

Check and take steps as described below. If the described suggestions do not solve the problem, it is recommended to take the unit to your nearest authorized Panasonic Servicenter. The product should be serviced only by qualified personnel. Please refer the checking and the repair to professionals. Panasonic shall not be liable for any accidents arising out of neglect of checking the unit or your own repair after your checking.

Never take measures especially for those other than indicated by *italic* letters in "Check point" described below because those are too dangerous for users to handle themselves.

### **A** Warning

- Do not use the unit in an irregular condition, for example, without sound, or with smoke or a foul smell, which can cause ignition or electric shock. Immediately stop using the unit and consult your dealer.
- Never try to repair the unit by yourself because it is dangerous to do so.

### **Troubleshooting Tips**

### **□** Common

Trouble	Check point
	Vehicle's ignition switch is not on.  → Turn your vehicle's ignition switch to ACC or ON.  Cables are not correctly connected.
No power.	→ Connect cables correctly.
	Power connector is not correctly connected.  Connect the power connector to the terminal that is always active.
	Power connector is not correctly connected.  → Connect the power connector to your vehicle's ACC source.
	Grounding wire is not correctly connected.  → Connect the grounding wire to a metal part of the vehicle.
No sound.	Mute is set to ON.
	→ Set it to OFF.  Cables are not correctly connected. → Connect cables correctly.
Noise.	The ground lead is not connected properly.  → Connect the ground lead properly.

### □ Radio

### Trouble

Much noise in FM stereo and monaural broadcasts.

Preset station is reset.

### **Check point**

Station is too far, or signals are too weak.

⇒ Select other stations of higher signal level.

The radio antenna is not extended enough.

> Extend fully the radio antenna.

Battery cable is not correctly connected.

- Connect the battery cable to the terminal that is always active.

Check point

### □ CD

### **Trouble**

Disc is in the CD compartment but no

sound is made, or disc is

ejected automatically.

Sound skips, bad sound quality. (e.g. caused by

noise)

Disc is upside down.

→ Place disc in the correct direction with the label side up.

- · Disc is dirty.
- Disc has scratches.
- Clean disc, referring to the section on "Notes on Discs".

A disc that has data other than CD-DA type is loaded.

→ Discs that have CD-DA type data should be used.

→ The unit may not successfully playback a CD-R/RW that is made in combination of writing software, a CD recorder (CD-R/RW drive) and a disc which are incompatible one another. Refer to instructions for the concerned devices for details.

- · Disc is dirty.
- · Disc has scratches.
- Clean disc, referring to the section on "Notes on Discs".

→ The unit may not successfully playback a CD-R/RW that is made in combination of writing software, a CD recorder (CD-R/RW drive) and a disc which are incompatible one another. Refer to instructions for the concerned devices for details.

Mounting angle is over 30°.

→ Adjust mounting angle to less than 30°.

Sound skips due to vibration.

### Instable mounting.

Mount the unit securely with the mounting parts, referring to the section on installation.

### Troubleshooting (Continued)

### □ CD (Continued)

Trouble

Check point

Disc is not ejected.

Disc is defective.
 Mechanical trouble.

→ Press [♠] (eject). If normal operation is not restored, call the store where you purchased the unit or the nearest Servicenter to ask for repairs.

Time is counted but no

sound comes out.

The first track of a mix mode disc was reproduced. (Mix mode is a format in which data except music is recorded on the first track and music data is recorded on other than the first track in a session.)

→ Playback music data recorded on other than the first track.

### □ Sound Setting

Trouble

Check point

Left and right balance, or front and rear balance is off on one side.

→ Adjust BAL/FAD as appropriate.

No sound from left, right, front, or rear speaker.

Cables are not correctly connected.

Connect the cables correctly.

Left and right sounds are reversed in stereo listening.

The right speaker wire is connected to the left speaker and the left speaker wire to the right speaker.

Connect the speaker wires to the correct ones.

### **Error Display Messages**

□ CD

Trouble

**Check point** 

E +

Disc is dirty, or is upside down.

A disc that has data other than CD-DA type is loaded.

⇒ Check the disc.

Disc has scratches.

→ Check the disc.

No operation by some cause.

If normal operation is not restored, call the store where you purchased the unit or the nearest Servicenter to ask for repairs.

### **Maintenance**

### Care of the Unit

### Cleaning this Unit

Use a dry, soft cloth to wipe.

### □ Caution on Cleaning

Printed side

Never use solvents such as benzine, thinner as they may mar the surface of the unit.

### **Notes on Discs**

Do not play any ordinary music CDs with labels other than this one.



### How to hold the disc

- Do not touch the underside of the disc.
- Do not scratch on the disc.
- Do not bend the disc.
- When not in use, keep the disc in a case.

### Do not leave discs in the following places:

- In direct sunlight
- Near car heaters
- Dirty, dusty and damp areas
- On seats and dashboards



Labels created by a printer, Protective films or sheets



Irregularly shaped discs

### Disc cleaning

Use a dry, soft cloth to wipe from the center outward.





<Wrona>



Do not write on the disc label with a ballpoint pen or other hard-point pens.



Disc with adhered stickers or tape



Discs with cracks, scratches or parts missing

### Notes on CD-R/RW

- You may have trouble playing back some CD-R/RW discs recorded on CD recorders (CD-R/RW drives), either due to their recording characteristics or dirt, fingerprints, scratches, etc. on the disc surface.
- CD-R/RW discs are less resistant to high temperatures and high humidity than ordinary music CDs. Leaving them inside a vehicle for extended periods may damage them and make playback impossible.
- The unit may not successfully play back a CD-R/RW that was made by the combination of writing software, a CD recorder (CD-R/RW drive) and a disc if they are incompatible one another.
- This player cannot play the CD-R/RW discs if the session is not closed.
- This player cannot play the CD-R/RW discs which contains other than CD-DA data.
- Be sure to observe the instructions of CD-R/RW disc for handling it.

### **Speaker Connections**

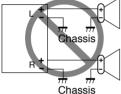
### **⚠** Caution

Please follow the instructions given below. Failure to do so will cause damage to the unit and speakers.

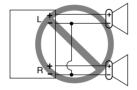
### <Right> (White) (White) (White) (White) (White) (White) (Gray) (Gray) (Gray) (White) (Gray) (Gray)

- · Use ungrounded speaker only.
- The maximum speaker input should be 37 W or more. (If used with the optional power amplifier, the speaker input should be higher than the maximum amplifier output.)
- The speaker impedance should be 4 8  $\Omega$ .
- This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
- The speaker cords and the power amplifier unit should be kept away (about 30 cm apart) from the antenna and antenna extension cord.

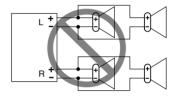
### 



• Never connect the speaker cord to the body of the car.



 Do not use a 3-wire type speaker system having a common earth



 Do not connect more than one speaker to one set of speaker leads.

### **Product Servicing**

If the suggestions in the charts do not solve the problem, we recommend that you take it to your nearest authorized Panasonic Servicenter. The product should be serviced only by a qualified technician.

### **Maintenance**

Your product is designed and manufactured to ensure the minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner, or other solvents.

### **Fuse**

If the replaced fuse fails, contact your nearest authorized Panasonic Servicenter.

### **A** Warning

Use fuses of the same specified rating (15 A). Using substitutes or fuses with higher ratings, or connecting the
unit directly without a fuse could cause fire or damage to the unit. If the replaced fuse fails, contact your
nearest authorized Panasonic Servicenter.

### **Installation Guide**



☐ This installation information is designed for professional installers with knowledge of automobile electrical safety systems and is not intended for non-technical, do-it-yourself individuals. It does not contain instructions on the electrical installation and avoidance of potential harm to air bag, anti-theft and ABS braking or other systems necessary to install this product.

Any attempt to install this product in a motor vehicle by anyone other than a professional installer could cause damage to the electrical safety system and could result in serious personal injury or death.

☐ If your car is equipped with air bag and/or anti-theft systems, specific procedures may be required for connection and disconnection of the battery to install this product.

Before attempting installation of this electronic component against the manufacturer's recommendation, you must contact your car dealer or manufacturer to determine the required procedure and strictly follow their instructions.

FAILURE TO FOLLOW THE PROCEDURE MAY RESULT IN THE UNINTENDED DEPLOYMENT OF AIR BAGS OR ACTIVATION OF THE ANTI-THEFT SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY OR DEATH.

### □ Overview

This product should be installed by a professional. However, should you decide to install the product against the manufacturer's recommendation, these operating Instructions do not contain electrical installation instructions. You must contact your car dealer or manufacturer for electrical connection instructions to avoid possible damage to your electrical safety systems and resulting injury or death. (Please refer to the "WARNING" statement above).

Your next step is to decide where to install the unit. The instructions in these pages will guide you through the remaining steps:

- · Identify and label the car wires.
- Connect the vehicle wires to the wires of the power connector.
- Install the unit in the dashboard.
- Check the operation of the unit.

If you encounter problems, please consult your nearest professional installer.

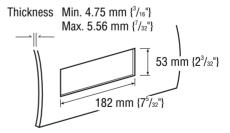
### **A** Warning

This unit operates with a 12 V DC negative 
 ground auto battery system only. Do not attempt
 to use it with any other system. Doing so could
 cause serious damage.

Before you begin installation, look for the following items which are packed with your unit.

- Operating Instructions (including "Limited Warranty" and "Customer Service Directory").
- Installation Hardware ..... Needed for Installation.

### Dashboard Specifications



### **Installation Guide** (Continued)

### □ Preparation

### **A** Warning

If your vehicle is equipped with air bag and/or antitheft systems, specific procedures may be required for connection and disconnection of the battery to install this product.

Before attempting installation of this electronic component, contact your vehicle dealer or manufacturer to determine the required procedure and strictly follow their instructions.

FAILURE TO FOLLOW THE PROCEDURE MAY RESULT IN THE UNINTENDED DEPLOYMENT OF AIR BAGS OR ACTIVATION OF THE ANTI-THEFT SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY OR DEATH.

- Remove Mounting Collar ① from the main unit temporarily, which are already mounted at shipment.\*

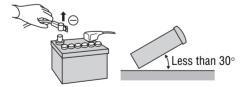
### **⚠** Caution

Various settings that have been stored in the memory in other on-board equipment (vehicle navigation etc.) may be lost if the battery terminals are disconnected.

Therefore, we recommend to make a record of or to back up the settings before disconnecting the terminals.

After completing installation of the main unit, set the equipment again according to the record.

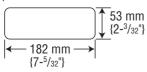
 Unit should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.



### □ Dashboard Installation

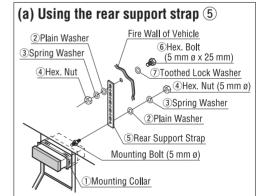
### **Installation Opening**

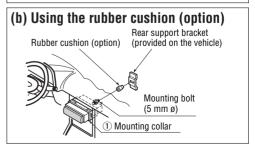
This unit can be installed in any dashboard having an opening as shown below. The dashboard should be  $4.75 \text{ mm } \{3/16^{\circ}\} - 5.56 \text{ mm } \{7/32^{\circ}\}$  thick in order to be able to support the unit.



### □ Installation Hardware

No.	Item	Diagram	Q'ty
1	Mounting Collar*		1
2	Plain washer (5 mm ø)	0	2
3	Spring Washer (5 mm ø)	0	2
4	Hex. Nut (5 mm ø)	8	2
5	Rear Support Strap	@00000000	1
6	Hex. Bolt (5 mm ø × 25 mm)	The state of the s	1
7	Toothed Lock Washer (5 mm ø)	0	1
8	Removal Tool (U-shaped)		2



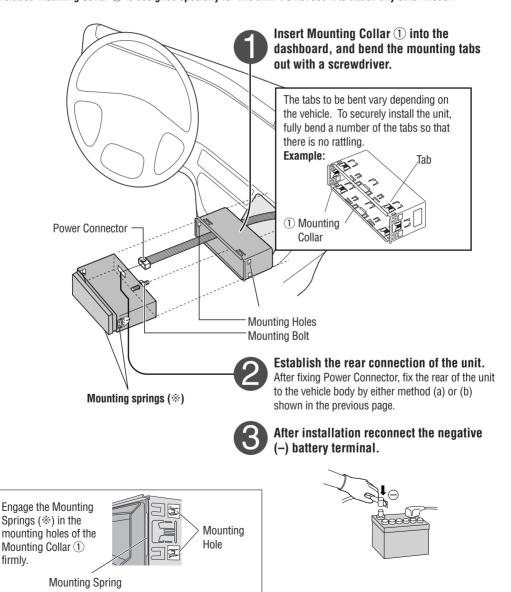


### **⚠** Caution

- We strongly recommend that you wear gloves for installation work to protect yourself from injuries.
- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.

First complete the electrical connections, and then check them for correctness.(→ page 27)

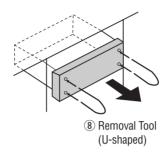
The included Mounting Collar ① is designed specially for this unit. Do not use it to attach any other model.



### **Installation Guide (Continued)**

### To Remove the Unit from the vehicle's dashboard

Insert each Removal Tool ® and pull.

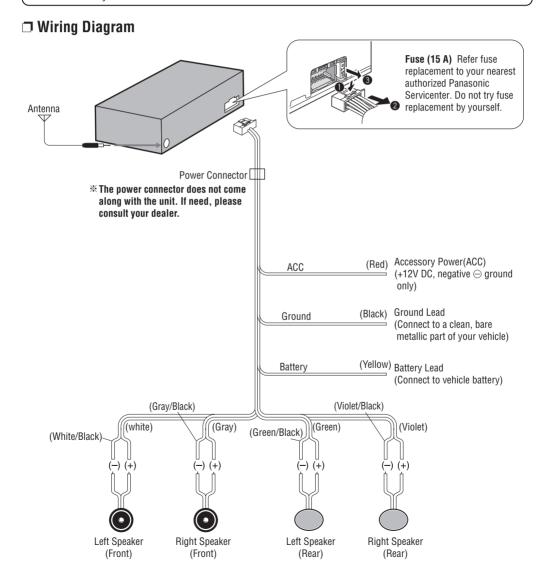


Note: Do not lose Removal Tools. They will be needed to remove the unit from the vehicle's dashboard.

### **Electrical Connections**

### **∴** Caution

- This wiring information is for experienced technical individual, for safety reason, please your dealer wire this
  connection.
- This product is designed to operate with a 12 V DC, negative ⊝ ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires from a possible short-circuit from the vehicle chassis. Bundle all cables and keep cable terminals free from touching any metal parts.
- Remember, if your vehicle has a drive computer or a navigation computer, the data of its memory maybe erased when the battery terminals are disconnected.



### **Specifications**

### □ General

Power Supply: 12 V DC (11 V-16 V) test Voltage 14.4 V. Negative ⊕ ground

Current consumption: Less than 2.5 A (CD mode, 0.5 W 4-speaker)

Maximum Power Output: 37 W × 4 channels at 400 Hz, Volume Control maximum

Tone adjustment range:

Bass: ± 12 dB at 100 Hz Treble: ± 12 dB at 10 kHz

Power Output: 18 W per channel into 4 ohms, 40 to 30 000 Hz at 3 % THD

Suitable Speaker Impedance:  $4-8 \Omega$ 

Dimensions (W  $\times$  H  $\times$  D):  $178(W) \times 50(H) \times 150(D) \text{ mm } \{7" \times 1-15/16" \times 5-7/8"\}$ 

Weight: 1.3 kg {2.8 lbs.}

### ☐ Front AUX Input

Input impedance:  $10 \text{ k}\Omega$ Allowable external input: 2.0 V

Connector: 3.5 mm ø stereo mini pin

### **□ FM Stereo Radio**

Frequency Range: 87.9-107.9 MHz

Useable Sensitivity: 12 dBf. (1.1  $\mu$ V/ 75  $\Omega$ , S/N 30 dB)

50 dB Quieting Sensitivity: 17 dBf. (1.8  $\mu$ V/ 75  $\Omega$ ) Frequency Response: 30-15 000 Hz ±3 dB

Alternate Channel Selectivity: 75 dB

Stereo Separation: 35 dB at 1 kHz Signal/Noise Ratio: 70 dB (Mono)

### **□** AM Radio

Frequency range: 530 kHz - 1 710 kHz Usable sensitivity: 28 dB/μV (25 μV, S/N 20 dB)

### **□** Weather Band Radio

Frequency range: 162.40 - 162.55 MHz Usable sensitivity: 3 dB/µV (S/N 20 dB)

Signal/Noise Ratio (40 dB/µV): 50 dB

### CD Player

Sampling Frequency: 32 times oversampling DA Converter: MASH•1 bit/4 DAC System

Error Correction System: Panasonic Super Decoding Algorithm

Pick-Up Type: 1-beam

Light Source: Semiconductor laser Wavalength: 790 nm Frequency Response: 20 - 20,000 Hz (±1 dB) Signal to Noise Ratio:

85 dB

Total Harmonic Distortion: 0.01 % (1 kHz)

Wow and Flutter: Below measurable limits

Channel Separation: 75 dB

Above specifications comply with EIA standards.

Power Output:

18 W RMS x 4 Channels at 4  $\Omega$  and  $\leq$  1%

THD+N

Signal to Noise Ratio:

85 dBA (reference: 1 W into 4  $\Omega$ )

Note: Specifications and the design are subject to modification without notice due to improvements in technology.

### Memorandum

# Memorandum

# Memorandum

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